

FILE 'HOME' ENTERED AT 12:35:20 ON 14 JUN 2002

=> st off

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=> cost off

COST IS NOT A RECOGNIZED COMMAND

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For a list of commands available to you in the current file, enter

"HELP COMMANDS" at an arrow prompt (=>).

=> e soyaaponin

THIS COMMAND NOT AVAILABLE IN THE CURRENT FILE

The EXPAND command is used to look at the index in a file
which has an index. This file does not have an index.

=> file ca plus

'PLUS' IS NOT A VALID FILE NAME

Enter "HELP FILE NAMES" at an arrow prompt (=>) for a list of files
that are available. If you have requested multiple files, you can
specify a corrected file name or you can enter "IGNORE" to continue
accessing the remaining file names entered.

ENTER A FILE NAME OR (IGNORE):caplus

| COST IN U.S. DOLLARS | SINCE FILE ENTRY | TOTAL SESSION |
|----------------------|------------------|---------------|
| FULL ESTIMATED COST | 0.42 | 0.42 |

FILE 'CA' ENTERED AT 12:36:18 ON 14 JUN 2002

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FILE 'CAPLUS' ENTERED AT 12:36:18 ON 14 JUN 2002

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=> e soyaaponin

| | | |
|----|---------|-------------------|
| E1 | 69 | SOYASAPOGENOLS/BI |
| E2 | 2 | SOYASAPONGENOL/BI |
| E3 | 497 --> | SOYASAPONIN/BI |
| E4 | 2 | SOYASAPONINA3/BI |

E5 182 SOYASAPONINS/BI
E6 2 SOYASAPOYENOL/BI
E7 2 SOYASAUCE/BI
E8 2 SOYASE/BI
E9 1 SOYASIGNAL/BI
E10 2 SOYASOPOGENOL/BI
E11 4 SOYASPOGENOL/BI
E12 2 SOYASPOGENOLS/BI

=> s e3

L1 527 SOYASAPONIN/BI

=> s l1 and isolation

L2 98 L1 AND ISOLATION

=> s l2 and molasses

L3 2 L2 AND MOLASSES

=> s l1 and nutraceutical

L4 0 L1 AND NUTRACEUTICAL

=> s l1 and drink

L5 0 L1 AND DRINK

=> dis l3 1-2 bib abs

L3 ANSWER 1 OF 2 CA COPYRIGHT 2002 ACS

AN 131:142039 CA

TI Novel Isoflavone, Cinnamic Acid, and Triterpenoid Glycosides in Soybean Molasses

AU Hosny, Mohammed; Rosazza, John P. N.

CS Division of Medicinal and Natural Products Chemistry Center for Biocatalysis and Bioprocessing, College of Pharmacy The University of Iowa, Iowa City, IA, 52242, USA

SO Journal of Natural Products (1999), 62(6), 853-858

CODEN: JNPRDF; ISSN: 0163-3864

PB American Chemical Society

DT Journal

LA English

GI

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB Seven known isoflavones, genistein, daidzein, glycitein, formononetin, genistin, daidzin, and glycitein 7-O-.beta.-D-(6"-O-acetylglucopyranoside), ferulic acid, and two known saponin glycosides, soysaponin I and soysaponin A2, were isolated from soybean molasses. Several new compds. were also isolated and identified, including three isoflavones I and II (R1 = H, R2 = OH; R1 = R2 = OMe), two cinnamic acid ester glycosides III (R3 = OH, R4 = H; R3 = R4 = OMe), and a new saponin hexaglycoside IV. The structures of the new compds. were established on the basis of spectral data interpretation.

RE.CNT 38 THERE ARE 38 CITED REFERENCES AVAILABLE FOR THIS RECORD

ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 2 OF 2 CAPLUS COPYRIGHT 2002 ACS

AN 1999:304439 CAPLUS

DN 131:142039

TI Novel Isoflavone, Cinnamic Acid, and Triterpenoid Glycosides in Soybean Molasses

AU Hosny, Mohammed; Rosazza, John P. N.

CS Division of Medicinal and Natural Products Chemistry Center for Biocatalysis and Bioprocessing, College of Pharmacy The University of Iowa, Iowa City, IA, 52242, USA

SO Journal of Natural Products (1999), 62(6), 853-858
CODEN: JNPRDF; ISSN: 0163-3864

PB American Chemical Society

DT Journal

LA English

GI

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RE.CNT 38 THERE ARE 38 CITED REFERENCES AVAILABLE FOR THIS RECORD

ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> s e1

L6 69 SOYASAPOGENOLS/BI

=> s l6 and chromatography

L7 31 L6 AND CHROMATOGRAPHY

=> s l7 and formic

L8 0 L7 AND FORMIC

=> s l7 and ethanol

L9 0 L7 AND ETHANOL

=> s l7 and isolation

L10 5 L7 AND ISOLATION

=> dis l7 1-5 bib abs

L7 ANSWER 1 OF 31 CA COPYRIGHT 2002 ACS

AN 127:120904 CA

TI Effect of germination, under different environmental conditions, on saponins, phytic acid and tannins in lentils (*Lens culinaris*)

AU Ayet, G.; Burbano, C.; Cuadrado, C.; Pedrosa, M. M.; Robredo, L. M.; Muzquiz, M.; de la Cuadra, C.; Castano, A.; Osagie, A.

CS Area de Tecnologia de los Alimentos, CIT-INIA, Madrid, 28080, Spain

SO Journal of the Science of Food and Agriculture (1997), 74(2), 273-279

CODEN: JSFAAE; ISSN: 0022-5142

PB Wiley

DT Journal

LA English

AB The effect of germination conditions on some antinutrients of *Lens culinaris* var Magda 20 seeds were studied. The seeds were germinated at 20.degree.C under variable conditions of time, water and light. Quant. analyses of the soyasapogenols, inositol phosphates and tannins were carried out by capillary gas chromatog., high-performance liq. chromatog. and spectrophotometric techniques, resp. Germinated seeds at day 6 contained higher levels soyasapogenol B than the controls, whereas in general the tannin content was reduced. Total phytic acid amts. did not decrease after 3 days of germination but it was greatly reduced after 6 days. This work shows that the optimal conditions to reduce some antinutritional factors (tannins and phytic acid) in lentils were 6 days of seed germination in the dark and with alternate watering.

Therefore, germination conditions offer a good opportunity to improve the nutritional quality of lentils.

L7 ANSWER 2 OF 31 CA COPYRIGHT 2002 ACS

AN 121:30348 CA

TI Alfalfa saponins and sapogenins: isolation and quantification in two different cultivars

AU Tava, A.; Oleszek, W.; Jurzysta, M.; Berardo, N.; Odoardi, M.

CS Ist. Sper. Colture Foraggere, Lodi, 20075, Italy

SO Phytochem. Anal. (1993), 4(6), 269-74

CODEN: PHANEL

DT Journal

LA English

AB The chem. characterization of the saponins and sapogenins isolated from roots and aerial parts of two alfalfa cultivars with differing saponin content is reported. A procedure for the extn. and quantification of saponins is described, and the identification of the major components of the saponin mixt. has been performed using thin layer chromatog. and high performance liq. chromatog. Characterization, using gas chromatog. (GC) and GC/mass spectral anal., of sapogenins released following acid hydrolysis allowed the identification of medicagenic acid, hederagenin, soyasapogenols B, C, D, E and F as the major compds., together with oleanolic acid. Quant. anal. of the sapogenins in aerial parts and roots of the two cultivars is reported and discussed.

L7 ANSWER 3 OF 31 CA COPYRIGHT 2002 ACS

AN 108:91706 CA

TI Studies on Medicago lupulina saponins. 6. Some chemical characteristics and biological activity of root saponins

AU Oleszek, Wieslaw; Jurzysta, Marian; Gorski, Piotr; Burda, Stanislaw; Ploszynski, Michal

CS Dep. Biochem., Inst. Uprawy, Nawozenia Glebozn., Pulawy, 24-100, Pol.

SO Acta Soc. Bot. Pol. (1987), 56(1), 119-26

CODEN: ASBNA2; ISSN: 0001-6977

DT Journal

LA English

AB The purified fraction of Medicago lupulina root saponins consists of 14 compds., 2 of which are medicagenic acid glycosides as indicated by 2-dimensional thin-layer chromatog. Its hydrolysis gave medicagenic acid, hederagenin, and soyasapogenols B, C, D, E, and F. The hemolytic, fungicidal, and allelopathic activities of M. lupulina were also studied.

L7 ANSWER 4 OF 31 CA COPYRIGHT 2002 ACS

AN 106:99430 CA

TI The saponin content and sapogenol composition of the seed of 13 varieties of legume

AU Price, Keith R.; Curl, Caralyn L.; Fenwick, G. Roger

CS Norwich Lab., AFRC Inst. Food Res., Norwich, NR4 7UA, UK

SO J. Sci. Food Agric. (1986), 37(12), 1185-91

CODEN: JSFAAE; ISSN: 0022-5142

DT Journal

LA English

AB The total saponin content of various legume seeds and their sapogenol compn. have been detd. Extn. of the defatted flours was effected with methanol and subsequent acid hydrolysis yielded the soyasapogenols which were analyzed with gas and thin-layer chromatog. The saponin levels ranged from 0-0.65% for defatted seed while the major sapogenol present in these saponins was soyasapogenol B. The figures obtained are compared with those previously reported, and reasons are suggested for the discrepancies.

L7 ANSWER 5 OF 31 CA COPYRIGHT 2002 ACS

AN 106:65901 CA

TI Soyasapogenols - separation, analysis and interconversions

AU Price, Keith R.; Fenwick, G. Roger; Jurzysta, Marian

CS Inst. Food Res., AFRC, Norwich, NR4 7UA, UK

SO J. Sci. Food Agric. (1986), 37(10), 1027-34

CODEN: JSFAAE; ISSN: 0022-5142

DT Journal

LA English

AB The hydrolysis products of soyasaponins in legumes and of pure stds. have been examd. using TLC, gas chromatog., and gas chromatog.-mass spectrometry. Interrelationships between eight soyasapogenols, produced under conditions of aq. or nonaq. acid hydrolysis, have been established. The significance of the work to the anal. of soyasaponins is discussed.

=> s l1 and polycystic

L11 0 L1 AND POLYCYSTIC

=> s l1 and kidney

L12 14 L1 AND KIDNEY

=> s l12 and treat

L13 2 L12 AND TREAT

=> s l1 and cystic

L14 0 L1 AND CYSTIC

=> dis I13 1-2 bib abs

L13 ANSWER 1 OF 2 CA COPYRIGHT 2002 ACS

AN 92:153139 CA

TI 3-O-(.beta.-D-Glucuronopyranosyl)soyasapogenol B

IN Shinohara, Masanao; Nakano, Yoshimasa; Kaise, Hirotsugu; Izawa, Taketoshi;
Miyazaki, Wasei

PA Otsuka Pharmaceutical Co., Ltd., Japan

SO Ger. Offen., 45 pp.

CODEN: GWXXBX

DT Patent

LA German

FAN.CNT 2

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---------------|------|----------|-----------------|----------|
| ----- | ---- | ----- | ----- | ----- |
| PI DE 2911353 | A1 | 19791011 | DE 1979-2911353 | 19790322 |
| DE 2911353 | C2 | 19871029 | | |
| JP 54130551 | A2 | 19791009 | JP 1978-38536 | 19780331 |
| JP 58022120 | B4 | 19830506 | | |
| ZA 7901061 | A | 19800326 | ZA 1979-1061 | 19790307 |
| AU 7944995 | A1 | 19791004 | AU 1979-44995 | 19790309 |
| AU 527201 | B2 | 19830224 | | |
| ES 478874 | A1 | 19801001 | ES 1979-478874 | 19790322 |
| BE 875105 | A1 | 19790926 | BE 1979-194225 | 19790326 |
| BE 875106 | A1 | 19790926 | BE 1979-194226 | 19790326 |
| NO 7900994 | A | 19791002 | NO 1979-994 | 19790326 |
| NO 154584 | B | 19860728 | | |
| NO 154584 | C | 19861105 | | |
| FI 7901011 | A | 19791001 | FI 1979-1011 | 19790327 |
| FI 67559 | B | 19841231 | | |
| FI 67559 | C | 19850410 | | |
| GB 2020290 | A | 19791114 | GB 1979-10739 | 19790327 |
| GB 2020290 | B2 | 19821027 | | |
| DK 7901266 | A | 19791001 | DK 1979-1266 | 19790328 |
| DK 162102 | B | 19910916 | | |
| DK 162102 | C | 19920224 | | |
| CA 1128498 | A1 | 19820727 | CA 1979-324367 | 19790328 |
| CH 640868 | A | 19840131 | CH 1979-2859 | 19790328 |
| NL 7902449 | A | 19791002 | NL 1979-2449 | 19790329 |
| AT 7902360 | A | 19820515 | AT 1979-2360 | 19790329 |
| AT 369426 | B | 19821227 | | |
| SE 7902866 | A | 19791016 | SE 1979-2866 | 19790330 |
| SE 434269 | B | 19840716 | | |
| SE 434269 | C | 19841025 | | |
| FR 2421179 | A1 | 19791026 | FR 1979-8121 | 19790330 |
| FR 2421179 | B1 | 19830318 | | |

| | | | | |
|--------------------|----|----------|-----------------|----------|
| US 4217345 | A | 19800812 | US 1979-25518 | 19790330 |
| SU 1074408 | A3 | 19840215 | SU 1979-2745040 | 19790330 |
| ES 487982 | A1 | 19810116 | ES 1980-487982 | 19800124 |
| SU 1190989 | A3 | 19851107 | SU 1980-2954186 | 19800731 |
| US 4371524 | A | 19830201 | US 1981-241294 | 19810306 |
| AT 8103847 | A | 19840815 | AT 1981-3847 | 19810907 |
| AT 377526 | B | 19850325 | | |
| PRAI JP 1978-38536 | | 19780331 | | |
| JP 1978-59345 | | 19780517 | | |
| AT 1979-2360 | | 19790329 | | |
| US 1979-25517 | | 19790330 | | |

GI

AB The title compd. (I) [72584-55-5], obtained by alcoholysis-sapon. or hydrolysis of soyasaponin B [73201-76-0] or from cultures of *Stachybotrys*, had anticomplement activity and pharmaceutical formulations contg. I or its salts can be used to treat nephritis, autoimmune, collagen, or rheumatic diseases. Thus, soyasaponin B was subjected to methanolysis to give II [51247-04-2], which was sapond. to give I. Injections contg. III [72584-56-6], and suppositories and tablets contg. I were prepd.

L13 ANSWER 2 OF 2 CAPLUS COPYRIGHT 2002 ACS

AN 1980:153139 CAPLUS

DN 92:153139

TI 3-O-(β -D-Glucuronopyranosyl)soyasapogenol B

IN Shinohara, Masanao; Nakano, Yoshimasa; Kaise, Hirotsugu; Izawa, Taketoshi; Miyazaki, Wasei

PA Otsuka Pharmaceutical Co., Ltd., Japan

SO Ger. Offen., 45 pp.

CODEN: GWXXBX

DT Patent

LA German

FAN.CNT 2

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|----|-------------|-------|----------|-----------------|----------|
| | ----- | ----- | ----- | ----- | ----- |
| PI | DE 2911353 | A1 | 19791011 | DE 1979-2911353 | 19790322 |
| | DE 2911353 | C2 | 19871029 | | |
| | JP 54130551 | A2 | 19791009 | JP 1978-38536 | 19780331 |
| | JP 58022120 | B4 | 19830506 | | |
| | ZA 7901061 | A | 19800326 | ZA 1979-1061 | 19790307 |
| | AU 7944995 | A1 | 19791004 | AU 1979-44995 | 19790309 |

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|--------------------|----|----------|-----------------|----------|
| AU 527201 | B2 | 19830224 | | |
| ES 478874 | A1 | 19801001 | ES 1979-478874 | 19790322 |
| BE 875105 | A1 | 19790926 | BE 1979-194225 | 19790326 |
| BE 875106 | A1 | 19790926 | BE 1979-194226 | 19790326 |
| NO 7900994 | A | 19791002 | NO 1979-994 | 19790326 |
| NO 154584 | B | 19860728 | | |
| NO 154584 | C | 19861105 | | |
| FI 7901011 | A | 19791001 | FI 1979-1011 | 19790327 |
| FI 67559 | B | 19841231 | | |
| FI 67559 | C | 19850410 | | |
| GB 2020290 | A | 19791114 | GB 1979-10739 | 19790327 |
| GB 2020290 | B2 | 19821027 | | |
| DK 7901266 | A | 19791001 | DK 1979-1266 | 19790328 |
| DK 162102 | B | 19910916 | | |
| DK 162102 | C | 19920224 | | |
| CA 1128498 | A1 | 19820727 | CA 1979-324367 | 19790328 |
| CH 640868 | A | 19840131 | CH 1979-2859 | 19790328 |
| NL 7902449 | A | 19791002 | NL 1979-2449 | 19790329 |
| AT 7902360 | A | 19820515 | AT 1979-2360 | 19790329 |
| AT 369426 | B | 19821227 | | |
| SE 7902866 | A | 19791016 | SE 1979-2866 | 19790330 |
| SE 434269 | B | 19840716 | | |
| SE 434269 | C | 19841025 | | |
| FR 2421179 | A1 | 19791026 | FR 1979-8121 | 19790330 |
| FR 2421179 | B1 | 19830318 | | |
| US 4217345 | A | 19800812 | US 1979-25518 | 19790330 |
| SU 1074408 | A3 | 19840215 | SU 1979-2745040 | 19790330 |
| ES 487982 | A1 | 19810116 | ES 1980-487982 | 19800124 |
| SU 1190989 | A3 | 19851107 | SU 1980-2954186 | 19800731 |
| US 4371524 | A | 19830201 | US 1981-241294 | 19810306 |
| AT 8103847 | A | 19840815 | AT 1981-3847 | 19810907 |
| AT 377526 | B | 19850325 | | |
| PRAI JP 1978-38536 | | 19780331 | | |
| JP 1978-59345 | | 19780517 | | |
| AT 1979-2360 | | 19790329 | | |
| US 1979-25517 | | 19790330 | | |

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autoimmune, collagen, or rheumatic diseases. Thus, soyasaponin B was subjected to methanolysis to give II [51247-04-2], which was saponified to give I. Injections containing III [72584-56-6], and suppositories and tablets containing I were prepared.

=> s e2

L15 2 SOYASAPONGENOL/BI

=> s l15 and kidney

L16 0 L15 AND KIDNEY

=> s l15 abd cyst

MISSING OPERATOR L15 ABD

The search profile that was entered contains terms or nested terms that are not separated by a logical operator.

=> s l15 and cyst

L17 0 L15 AND CYST

=> s l15 and isolate

L18 0 L15 AND ISOLATE

=> s l15 and chromatography

L19 0 L15 AND CHROMATOGRAPHY

=> dis l15 1-2 bib abs

L15 ANSWER 1 OF 2 CA COPYRIGHT 2002 ACS

AN 118:55113 CA

TI Glucuronidase directly hydrolyzing glucuronide bond

IN Kudo, Shigemitsu; Okubo, Kazuyoshi

PA Ao, Teikichi, Japan

SO Jpn. Kokai Tokkyo Koho, 6 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------------|------|------|-----------------|------|
|------------|------|------|-----------------|------|

| | | | | |
|----------------|----|----------|---------------|----------|
| PI JP 04267876 | A2 | 19920924 | JP 1991-48977 | 19910221 |
|----------------|----|----------|---------------|----------|

AB The glucuronidase (I) cleaves directly the glucuronide bond between the sugar chain and hydrophobic aglycons such as soybean saponins. No glucuronic acid is released in the enzymic reaction. *Aspergillus oryzae* KO-2 was still-cultured in MY medium containing crude soybean saponin, malt ext., yeast ext., and salts at 30.degree. for 4 days. The extracellular I

showed 1.49 .times. 10⁻³ unit/mL enzyme activity (1 unit = prodn. of 1 .mu.mol soyasapongenol B per min from soybean saponin Bb).
Screening of I from various Aspergillus and substrate specificity of I are also described.

L15 ANSWER 2 OF 2 CAPLUS COPYRIGHT 2002 ACS

AN 1993:55113 CAPLUS

DN 118:55113

TI Glucuronidase directly hydrolyzing glucuronide bond

IN Kudo, Shigemitsu; Okubo, Kazuyoshi

PA Ao, Teikichi, Japan

SO Jpn. Kokai Tokkyo Koho, 6 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------------|------|------|-----------------|------|
|------------|------|------|-----------------|------|

| | | | | |
|----------------|----|----------|---------------|----------|
| PI JP 04267876 | A2 | 19920924 | JP 1991-48977 | 19910221 |
|----------------|----|----------|---------------|----------|

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Screening of I from various Aspergillus and substrate specificity of I are also described.

09964554

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PASSWORD:

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NEWS 4 Feb 01 DKILIT now produced by FIZ Karlsruhe and has a new update
frequency
NEWS 5 Feb 19 Access via Tymnet and SprintNet Eliminated Effective 3/31/02
NEWS 6 Mar 08 Gene Names now available in BIOSIS
NEWS 7 Mar 22 TOXLIT no longer available
NEWS 8 Mar 22 TRCTHERMO no longer available
NEWS 9 Mar 28 US Provisional Priorities searched with P in CA/CAPLUS
and USPATFULL
NEWS 10 Mar 28 LIPINSKI/CALC added for property searching in REGISTRY
NEWS 11 Apr 02 PAPERCHEM no longer available on STN. Use PAPERCHEM2 instead.
NEWS 12 Apr 08 "Ask CAS" for self-help around the clock
NEWS 13 Apr 09 BEILSTEIN: Reload and Implementation of a New Subject Area
NEWS 14 Apr 09 ZDB will be removed from STN
NEWS 15 Apr 19 US Patent Applications available in IFICDB, IFIPAT, and IFIUDB
NEWS 16 Apr 22 Records from IP.com available in CAPLUS, HCAPLUS, and ZCAPLUS
NEWS 17 Apr 22 BIOSIS Gene Names now available in TOXCENTER
NEWS 18 Apr 22 Federal Research in Progress (FEDRIP) now available
NEWS 19 Jun 03 New e-mail delivery for search results now available
NEWS 20 Jun 10 MEDLINE Reload
NEWS 21 Jun 10 PCTFULL has been reloaded

NEWS EXPRESS February 1 CURRENT WINDOWS VERSION IS V6.0d,
CURRENT MACINTOSH VERSION IS V6.0a(ENG) AND V6.0Ja(JP),
AND CURRENT DISCOVER FILE IS DATED 05 FEBRUARY 2002
NEWS HOURS STN Operating Hours Plus Help Desk Availability
NEWS INTER General Internet Information
NEWS LOGIN Welcome Banner and News Items
NEWS PHONE Direct Dial and Telecommunication Network Access to STN
NEWS WWW CAS World Wide Web Site (general information)

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* * * * * STN Columbus * * * * *

FILE 'HOME' ENTERED AT 10:26:45 ON 14 JUN 2002

=> file caplus

| COST IN U.S. DOLLARS | SINCE FILE ENTRY | TOTAL SESSION |
|----------------------|------------------|---------------|
| FULL ESTIMATED COST | 0.21 | 0.21 |

FILE 'CAPLUS' ENTERED AT 10:27:01 ON 14 JUN 2002
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FILE COVERS 1907 - 14 Jun 2002 VOL 136 ISS 24
FILE LAST UPDATED: 12 Jun 2002 (20020612/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

CAS roles have been modified effective December 16, 2001. Please check your SDI profiles to see if they need to be revised. For information on CAS roles, enter HELP ROLES at an arrow prompt or use the CAS Roles thesaurus (/RL field) in this file.

```
=> s saponin
      13295 SAPONIN
      10241 SAPONINS
L1      16564 SAPONIN
          (SAPONIN OR SAPONINS)
```

```
=> s l1 and soya
      6856 SOYA
      2 SOYAS
      6857 SOYA
          (SOYA OR SOYAS)
L2      157 L1 AND SOYA
```

```
=> s l2 and isoation
      13 ISOATION
L3      0 L2 AND ISOATION
```

```
=> sl2 and isolation
SL2 IS NOT A RECOGNIZED COMMAND
The previous command name entered was not recognized by the system.
For a list of commands available to you in the current file, enter
"HELP COMMANDS" at an arrow prompt (=>).
```

```
=> s l2 and isolation
      208558 ISOLATION
      876 ISOLATIONS
      209119 ISOLATION
          (ISOLATION OR ISOLATIONS)
L4      16 L2 AND ISOLATION
```

```
=> s l4 and molasses
      18439 MOLASSES
      1 MOLASSESES
      18440 MOLASSES
```

```

                (MOLASSES OR MOLASSESES)
L5              0 L4 AND MOLASSES

=> s 12 and molasses
    18439 MOLASSES
    1 MOLASSESES
    18440 MOLASSES
                (MOLASSES OR MOLASSESES)
L6              3 L2 AND MOLASSES

=> s 16 and soy
    14990 SOY
    2 SOYS
    14990 SOY
                (SOY OR SOYS)
L7              2 L6 AND SOY

=> s 12 and pharmaceutical
    157607 PHARMACEUTICAL
    67984 PHARMACEUTICALS
    196926 PHARMACEUTICAL
                (PHARMACEUTICAL OR PHARMACEUTICALS)
L8              20 L2 AND PHARMACEUTICAL

=> s 18 and carrier
    212637 CARRIER
    112681 CARRIERS
    273256 CARRIER
                (CARRIER OR CARRIERS)
L9              0 L8 AND CARRIER

=> s 18 and diluent
    22007 DILUENT
    9186 DILUENTS
    27725 DILUENT
                (DILUENT OR DILUENTS)
L10             0 L8 AND DILUENT

=> s 18 and composition
    589040 COMPOSITION
    236457 COMPOSITIONS
    821760 COMPOSITION
                (COMPOSITION OR COMPOSITIONS)
    1152501 COMPN
    451277 COMPNS
    1405101 COMPN
                (COMPN OR COMPNS)
    1837445 COMPOSITION
                (COMPOSITION OR COMPN)
L11             11 L8 AND COMPOSITION

=> s 12 and treatment
    1669429 TREATMENT
    155848 TREATMENTS
    1755918 TREATMENT
                (TREATMENT OR TREATMENTS)
L12             20 L2 AND TREATMENT

=> s 112 and kidney
    221463 KIDNEY
    45428 KIDNEYS
    237815 KIDNEY
                (KIDNEY OR KIDNEYS)
L13             1 L12 AND KIDNEY

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=> s 113 and cystic
    10314 CYSTIC
      1 CYSTICS
    10315 CYSTIC
      (CYSTIC OR CYSTICS)
L14      0 L13 AND CYSTIC

=> s 12 and cystic
    10314 CYSTIC
      1 CYSTICS
    10315 CYSTIC
      (CYSTIC OR CYSTICS)
L15      0 L2 AND CYSTIC

=> s 12 and chromatography
    268118 CHROMATOGRAPHY
      136 CHROMATOGRAPHIES
    268220 CHROMATOGRAPHY
      (CHROMATOGRAPHY OR CHROMATOGRAPHIES)
    529343 CHROMATOG
      2917 CHROMATOGS
    531447 CHROMATOG
      (CHROMATOG OR CHROMATOGS)
    613016 CHROMATOGRAPHY
      (CHROMATOGRAPHY OR CHROMATOG)
L16      21 L2 AND CHROMATOGRAPHY

=> s 116 and sepharose
    34044 SEPHAROSE
      86 SEPHAROSSES
    34058 SEPHAROSE
      (SEPHAROSE OR SEPHAROSSES)
L17      0 L16 AND SEPHAROSE

=> s 116 and hexadecyltrimethylammonium
    3143 HEXADECYLTRIMETHYLAMMONIUM
L18      0 L16 AND HEXADECYLTRIMETHYLAMMONIUM

=> s 116 and hydrophobic
    104777 HYDROPHOBIC
      20 HYDROPHOBICS
    104783 HYDROPHOBIC
      (HYDROPHOBIC OR HYDROPHOBICS)
L19      0 L16 AND HYDROPHOBIC

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=> dis 14 1-4 bib abs

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L4  ANSWER 1 OF 16  CAPLUS  COPYRIGHT 2002 ACS
AN  2002:227052  CAPLUS
DN  136:324290
TI  Quantification of the Group B Soyasaponins by High-Performance Liquid
    Chromatography
AU  Hu, Jiang; Lee, Sun-Ok; Hendrich, Suzanne; Murphy, Patricia A.
CS  Department of Food Science and Human Nutrition, Iowa State University,
    Ames, IA, 50011, USA
SO  Journal of Agricultural and Food Chemistry (2002), 50(9), 2587-2594
    CODEN: JAFCAU; ISSN: 0021-8561
PB  American Chemical Society
DT  Journal
LA  English
AB  High-performance liq. chromatog. methods were developed for the
    isolation and quant. detn. of the group B soyasaponins, including
    2,3-dihydro-2,5-dihydroxy-6-methyl-4H-pyran-4-one (DDMP)-conjugated
    soyasaponins .alpha.g, .beta.g, and .beta.a, and their non-DDMP
    counterparts, soyasaponins V, I, and II, resp., with formononetin used as

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the internal std. The limits of quantification for soy products were 0.11-4.86 .mu.mol/g. The within-day and between-days assay coeffs. of variation were <9.8 and < 14.3%, resp. The group B soyasaponin concns. in 46 soybean varieties ranged from 2.50 to 5.85 .mu.mol/g. Soy ingredients (soybean flour, toasted soy hypocotyls, soy protein isolates, textured vegetable protein, soy protein concs., and Novasoy) and soy foods (com. soy milk, tofu, and tempeh) contained the group B soyasaponins from 0.20 to 114.02 .mu.mol/g. There was no apparent correlation between isoflavone and soyasaponin concns. in the soy products examd.

L4 ANSWER 2 OF 16 CAPLUS COPYRIGHT 2002 ACS
 AN 1999:670979 CAPLUS
 DN 131:291261
 TI Soybean drug and new method of extracting soybean **saponins**
 IN Liu, Yaguang
 PA USA
 SO U.S., 5 pp.
 CODEN: USXXAM
 DT Patent
 LA English
 FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|----|---|------|----------|-----------------|----------|
| PI | US 5968516 | A | 19991019 | US 1995-538389 | 19951003 |
| AB | A pharmaceutical compn. for treatment of cardiovascular disease, for increasing immune functions and for decreasing serum lipids contains soybean saponins . A process for producing soybean saponins comprises: (a) extg. a ground soybean residue with 95 % ethanol at room temp. for 24 h; (b) filtering the above mixt. and sepg. filtrate from residue; (c) adding ethanol to the filtered residue and refluxed in water bath for 6 h; (d) repeating the refluxed process in water bath for total 12 h; (e) cooling the refluxed ethanol mixt., filtering and combining all the filtrates; (f) recovering ethanol by reduced pressure distn. and dissolving the residue in distd. water; (g) adding ether to the above soln. to form ppt.; (h) collecting the ppt. by filtration; and (i) recovering ether by reduced pressure distn. in water bath and drying the residue under vacuum to result white or light yellow powder as a product. | | | | |

RE.CNT 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 3 OF 16 CAPLUS COPYRIGHT 2002 ACS
 AN 1995:919054 CAPLUS
 TI Artifacts and **saponins**.
 AU Massiot, G.; Lavaud, C.; Dijoux, M-G.
 CS Faculte de Pharmacie, Reims, 51096, Fr.
 SO Book of Abstracts, 210th ACS National Meeting, Chicago, IL, August 20-24 (1995), Issue Pt. 1, AGFD-059 Publisher: American Chemical Society, Washington, D. C.
 CODEN: 61XGAC
 DT Conference; Meeting Abstract
 LA English
 AB Sepn. and structural elucidation of **saponins** are long and complex processes during which time, rearrangements and losses of fragile groups may occur. The use of high field NMR in the control of the **isolation** and sepn. steps allows to ascertain the conservation of all the elements of a **saponin**. This will be discussed with examples of **saponins** from **soya** and alfalfa, with the dihydropyrane appendage and from sugar beet, with seco-glycoside derivs.

L4 ANSWER 4 OF 16 CAPLUS COPYRIGHT 2002 ACS
 AN 1994:431355 CAPLUS
 DN 121:31355
 TI **Isolation** and purification of soyasaponins
 IN Kudo, Shigemitsu; Ookubo, Kazuyoshi

particularly, a compn. is prepd. by extg. phytochems. from plant matter. This compn. is enriched preferably in two or more isoflavones, lignans, **saponins**, catechins and phenolic acids. Soy is the preferred source of these chems.; however, other plants may also be used, such as red clover, kudzu, flax, and cocoa. The compn. is a dietary supplement for treatment of various cancers, pre-and-post-menstrual syndromes, and various other disorders.

RE.CNT 47 THERE ARE 47 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 2 OF 3 CAPLUS COPYRIGHT 2002 ACS
AN 2000:222893 CAPLUS
DN 132:333651
TI Characterization and antimutagenic activity of soybean **saponins**
AU Berhow, Mark A.; Wagner, Elizabeth D.; Vaughn, Steven F.; Plewa, Michael J.
CS United States Department of Agriculture, Agricultural Research Service, National Center for Agricultural Utilization Research, Peoria, IL, 61604, USA
SO Mutation Research (2000), 448(1), 11-22
CODEN: MUREAV; ISSN: 0027-5107
PB Elsevier Science B.V.
DT Journal
LA English
AB An ext. was prepd. from a com. soybean-processing byproduct (soybean **molasses**) and was fractionated into purified chem. components. In previous work, this ext. (phytochem. conc., PCC) repressed induced genomic DNA damage, whole cell clastogenicity and point mutation in cultured mammalian cells. In the current study, a chem. fraction was isolated from PCC using preparative high-performance liq. chromatog. (HPLC). This fraction, PCC100, repressed 2-acetoxyacetylaminofluorene (2AAAF)-induced DNA damage in Chinese hamster ovary (CHO) cells as measured by single cell gel electrophoresis (alk. Comet assay). Using liq. chromatog.-electrospray ionization-mass spectroscopy and 1H and 13C NMR (NMR) spectroscopy, PCC100 was shown to consist of a mixt. of group B soyasaponins and 2,3-dihydro-2,5-dihydroxy-6-methyl-4H-pyran-4-one (DDMP) soyasaponins. These include soyasaponins I, II, III, IV, V, Be, .beta.g, .beta.a, .gamma.g and .gamma.a. Purified soyasapogenol B aglycon prepd. from fraction PCC100 demonstrated significant antigenotoxic activity against 2AAAF. To our knowledge, these data demonstrate for the first time the antimutagenic activity of soybean **saponins** in mammalian cells.

RE.CNT 58 THERE ARE 58 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 3 OF 3 CAPLUS COPYRIGHT 2002 ACS
AN 1999:241997 CAPLUS
DN 130:287063
TI Method of preparing and using phytochemicals
IN Empie, Mark; Gugger, Eric
PA Archer Daniels Midland Company, USA
SO Eur. Pat. Appl., 12 pp.
CODEN: EPXXDW
DT Patent
LA English
FAN.CNT 5

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|---|------|----------|-----------------|------------|
| PI | EP 906761 | A2 | 19990407 | EP 1998-308060 | 19981002 ← |
| | EP 906761 | A3 | 19990519 | | |
| | R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO | | | | |
| | US 6261565 | B1 | 20010717 | US 1998-162038 | 19980928 |
| | ZA 9808962 | A | 19990913 | ZA 1998-8962 | 19981001 |
| PRAI | US 1997-60549P | P | 19971002 | | |

PA Abo Sadakichi, Japan
SO Jpn. Kokai Tokkyo Koho, 5 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|----|-------------|------|----------|-----------------|----------|
| PI | JP 06100583 | A2 | 19940412 | JP 1992-277828 | 19920922 |
| GI | JP 2640066 | B2 | 19970813 | | |

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB Soyasaponins having aglycon soyasapogenol B (I; R = Q, Q1, Q2) are isolated and purified by extg. **soya** glycosides from soy beans with aq. MeOH, directly adsorbing the ext. on an ODS (octadecyl silyl) column, eluting the column with aq. MeOH, analyzing the effluents using thin layer chromatog. or HPLC, sep. selecting and collecting the fractions contg. each soyasaponin, and concg. the combined fractions to dryness. Soyasaponins are isolated as true **saponins** in 2 steps, since no alkali treatment was involved.

=> dis 16 1-3 bib abs

L6 ANSWER 1 OF 3 CAPLUS COPYRIGHT 2002 ACS
AN 2001:519341 CAPLUS
DN 135:91861
TI Method of preparing and using isoflavones
IN Empie, Mark; Gugger, Eric
PA Archer Daniels Midland Co., USA
SO U.S., 8 pp., Cont.-in-part of U.S. 6,033,714.
CODEN: USXXAM

DT Patent
LA English
FAN.CNT 5

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|---|------|----------|-----------------|----------|
| PI | US 6261565 | B1 | 20010717 | US 1998-162038 | 19980928 |
| | US 5702752 | A | 19971230 | US 1996-614545 | 19960313 |
| | US 5792503 | A | 19980811 | US 1997-868629 | 19970604 |
| | US 6033714 | A | 20000307 | US 1998-35588 | 19980305 |
| AU | 9887879 | A1 | 19990422 | AU 1998-87879 | 19981001 |
| ZA | 9808962 | A | 19990913 | ZA 1998-8962 | 19981001 |
| EP | 906761 | A2 | 19990407 | EP 1998-308060 | 19981002 |
| EP | 906761 | A3 | 19990519 | | |
| | R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO | | | | |
| JP | 11221048 | A2 | 19990817 | JP 1998-296187 | 19981002 |
| US | 6391308 | B1 | 20020521 | US 2000-615239 | 20000713 |
| US | 6391309 | B1 | 20020521 | US 2000-615240 | 20000713 |
| US | 6391310 | B1 | 20020521 | US 2000-616205 | 20000713 |
| US | 6395279 | B1 | 20020528 | US 2000-616150 | 20000713 |
| US | 6399072 | B1 | 20020604 | US 2000-615152 | 20000713 |
| PRAI | US 1996-614545 | A3 | 19960313 | | |
| | US 1997-868629 | A2 | 19970604 | | |
| | US 1997-60549P | P | 19971002 | | |
| | US 1998-35588 | A2 | 19980305 | | |
| | US 1998-162038 | A | 19980928 | | |
| AB | The invention provides for a refinement of phytochems. in order to tailor the refined end product to particular human dietary needs. More | | | | |

US 1998-162038 P 19980928
US 1996-614545 A3 19960313
US 1997-868629 A2 19970604
US 1998-35588 A2 19980305

AB A compn. is prepd. by extg. phytochems. from plant matter. This compn. is enriched preferably in isoflavones, lignans, **saponins**, catechins and phenolic acids. Soy is the preferred source of these chems.; however, other plants may also be used, such as red clover, kudzu, flax, and cocoa. The compn. is a dietary supplement for treatment of various cancers, pre- and post-menstrual syndromes, and various other disorders.

=> dis 18 1-20 bib abs

L8 ANSWER 1 OF 20 CAPLUS COPYRIGHT 2002 ACS

AN 2000:741892 CAPLUS

DN 133:313639

TI **Pharmaceutical** formulations comprising bisphosphonates and additive agents providing enhanced absorptions of the bisphosphonates
IN Lindfors, Lennart; Lofroth, Jan-Erik; Sjogren, Sven; Ungell, Anna-Lena
PA Astrazeneca AB, Swed.
SO PCT Int. Appl., 31 pp.
CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|-------------------|--|----------|-----------------|----------|
| ----- | ----- | ----- | ----- | ----- |
| PI WO 2000061111 | A1 | 20001019 | WO 2000-SE664 | 20000406 |
| W: | AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM | | | |
| RW: | GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG | | | |
| EP 1171097 | A1 | 20020116 | EP 2000-921288 | 20000406 |
| R: | AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO | | | |
| NO 2001004895 | A | 20011210 | NO 2001-4895 | 20011008 |
| PRAI SE 1999-1272 | A | 19990409 | | |
| WO 2000-SE664 | W | 20000406 | | |

OS MARPAT 133:313639

AB The present invention provides **pharmaceutical** formulations comprising at least one bisphosphonate and an additive consisting of one or more absorption enhancing agents. The said **pharmaceutical** formulations are useful for the inhibition of bone resorption and for the treatment and prevention of osteoporosis. A compn. contg. alendronate 2.3, caprylic acid sodium salt 11.5 mg, and 50 mM Tris with 100 mM NaCl 1 g was formulated.

RE.CNT 10 THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 2 OF 20 CAPLUS COPYRIGHT 2002 ACS

AN 1999:783900 CAPLUS

DN 132:26671

TI Use of a cosmetically acceptable **saponin** or sapogenol as cosmetic agent for increasing the collagen IV in the dermal-epidermal junction

IN Bonte, Frederic; Dumas, Marc; Perrier, Pierre

PA Parfums Christian Dior, Fr.

SO PCT Int. Appl., 24 pp.

CODEN: PIXXD2

DT Patent
LA French
FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|--|------|----------|-----------------|----------|
| | ----- | --- | ----- | ----- | ----- |
| PI | WO 9962480 | A2 | 19991209 | WO 1999-FR1260 | 19990528 |
| | WO 9962480 | A3 | 20000720 | | |
| | W: JP, US | | | | |
| | RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE | | | | |
| | FR 2779058 | A1 | 19991203 | FR 1998-6821 | 19980529 |
| | EP 1079797 | A2 | 20010307 | EP 1999-923642 | 19990528 |
| | R: DE, ES, FR, GB, IT | | | | |
| | JP 2002516837 | T2 | 20020611 | JP 2000-551737 | 19990528 |
| PRAI | FR 1998-6821 | A | 19980529 | | |
| | WO 1999-FR1260 | W | 19990528 | | |

AB **Saponins** or sapogenols, in particular extd. from plants such as **soya** or **Medicago**, are used in cosmetol. and for making **pharmaceutical** compns. for skin treatment to increase the amt. of collagen IV in the dermal-epidermal junction. The invention also concerns novel cosmetic compns. promoting the increase of the amt. of collagen IV in the dermal-epidermal junction and a cosmetic treatment method using a **saponin** or sapogenol. The invention is applicable in cosmetics preferably in anti-wrinkle treatment and in pharmaceuticals for treating diseases related to dermal-epidermal junction deficiency resulting from an insufficient amt. of collagen IV. **Soya saponins** at a concn. of 25 .mu.g/mL increased cultured keratinocytes collagen type IV by 37.5%. An antiaging cream contained retinol 4000 IU, **soya saponins** 0.01, glycerin 3, Commiphora mukkul 0.1, and fluid emulsion excipients q.s. 100 g.

L8 ANSWER 3 OF 20 CAPLUS COPYRIGHT 2002 ACS
AN 1999:766129 CAPLUS
DN 131:341987

TI Promoters for polypeptide drug mucosal absorption and compositions containing polypeptide drugs and absorption promoters
IN Xu, Huibi; Huang, Kaixun; Peng, Hong; He, Gongbei; Gao, Qiuhua; Gao, Zhonghong; Yang, Xiangliang; Liu, Qiong; Qin, Hui; Yang, Jilin
PA Huazhong Science and Engineering Univ., Peop. Rep. China
SO Faming Zhuanli Shenqing Gongkai Shuomingshu, 11 pp.
CODEN: CNXXEV

DT Patent
LA Chinese

FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|----|--|------|----------|-----------------|----------|
| | ----- | --- | ----- | ----- | ----- |
| PI | CN 1151323 | A | 19970611 | CN 1995-119260 | 19951128 |
| AB | Promoters for polypeptide drug mucosal absorption are selected from laurocapram, saponin , glycyrrhizin, glycolate, glycyrrhizinate, glycyrrhetinic acid, Na glycyrrhetinate, and acid esters (such as decanoylphosphatidylcholine). A pharmaceutical compn. for mucosal absorption [buccal or sublingual tablet] contains proteinase inhibitor, pH buffer, excipient, binder, disintegrating agent, and lubricant in addn. to polypeptide drugs and the promoters. The polypeptide drugs are insulin, angiotensin, calcitonin, glucagon, .beta.-endorphin, muramyl dipeptide, enkephalin, neurotensin, parathyroid hormone, and TSH. The proteinase inhibitor is a protein of animals or plants including serum protein, casein, soya protein, glutelin, and zein. Buccal tablets were formulated contg. gelatin 80, glycyrrhetinic acid 8, serum albumin 1.6, sodium citrate 8, flavors 0.8, and insulin 0.8 %. | | | | |

L8 ANSWER 4 OF 20 CAPLUS COPYRIGHT 2002 ACS
AN 1999:670979 CAPLUS
DN 131:291261

TI Soybean drug and new method of extracting soybean **saponins**
IN Liu, Yaguang
PA USA
SO U.S., 5 pp.
CODEN: USXXAM
DT Patent
LA English
FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|----|--|------|----------|-----------------|----------|
| | ----- | --- | ----- | ----- | ----- |
| PI | US 5968516 | A | 19991019 | US 1995-538389 | 19951003 |
| AB | A pharmaceutical compn. for treatment of cardiovascular disease, for increasing immune functions and for decreasing serum lipids contains soybean saponins . A process for producing soybean saponins comprises: (a) extg. a ground soybean residue with 95 % ethanol at room temp. for 24 h; (b) filtering the above mixt. and sepg. filtrate from residue; (c) adding ethanol to the filtered residue and refluxed in water bath for 6 h; (d) repeating the refluxed process in water bath for total 12 h; (e) cooling the refluxed ethanol mixt., filtering and combining all the filtrates; (f) recovering ethanol by reduced pressure distn. and dissolving the residue in distd. water; (g) adding ether to the above soln. to form ppt.; (h) collecting the ppt. by filtration; and (i) recovering ether by reduced pressure distn. in water bath and drying the residue under vacuum to result white or light yellow powder as a product. | | | | |

RE.CNT 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 5 OF 20 CAPLUS COPYRIGHT 2002 ACS
AN 1999:423195 CAPLUS
DN 131:242364
TI Physiological functions of soybeans
AU Yoshikawa, Masayuki
CS Dept. of Pharmacology, Kyoto Pharmaceutical University, Japan
SO Shokuhin to Kagaku (1999), 41(5), 35-39
CODEN: SHTKAY; ISSN: 0037-4105
PB Shokuhin to Kagakusha
DT Journal; General Review
LA Japanese
AB A review with 9 refs. on physiol. functions of soybeans, esp. structures and functions of soyasaponins.

L8 ANSWER 6 OF 20 CAPLUS COPYRIGHT 2002 ACS
AN 1999:191259 CAPLUS
DN 131:27300
TI Review of studies on biological activities of soyasaponins
AU Qian, Zhong-Zhi; Dai, Xin-Yu; Ma, Xing-Sheng
CS Drug Control of Heilongjiang Province, Harbin, Peop. Rep. China
SO Studies in Plant Science (1999), 6(Advances in Plant Glycosides, Chemistry and Biology), 193-195
CODEN: SPLCEU; ISSN: 0928-3420
PB Elsevier Science B.V.
DT Journal; General Review
LA English
AB A review with 15 refs. This review is about the studies on biol. activities of soyasaponins (ss). These studies show that ss have extensive biol. activities and pharmacol. values. Thus, ss may become new drug resources for treating angiocardopathy and inhibiting cancer.

RE.CNT 15 THERE ARE 15 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 7 OF 20 CAPLUS COPYRIGHT 2002 ACS
AN 1996:175801 CAPLUS
DN 124:212104
TI Liposomes containing ginseng **saponins** or other active

ingredients for injection
 IN Ma, Shuxian; Su, Mingxian; Wang, Haibo
 PA Dalian Inst. of Medicinal Sciences, Peop. Rep. China
 SO Faming Zhuanli Shenqing Gongkai Shuomingshu, 11 pp.
 CODEN: CNXXEV
 DT Patent
 LA Chinese
 FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|----|------------|------|----------|-----------------|----------|
| PI | CN 1110134 | A | 19951018 | CN 1994-112420 | 19940730 |
| | CN 1062733 | B | 20010307 | | |

AB Liposomes contg. ginseng **saponins** or other active ingredients for injection are prepd. by dissolving e.g. ginseng **saponins** in water, distributing the soln. into vials, mixing with soybean phospholipids, cephalin and cholesterol in ether, and freeze-drying. The compns. were dissolved in injection water prior to administration. The method was simple and suitable for mass prodn.

L8 ANSWER 8 OF 20 CAPLUS COPYRIGHT 2002 ACS
 AN 1996:109303 CAPLUS
 DN 124:170516
 TI The advances in **soya saponin** research
 AU Wang, Zhangcun
 CS Zhengzhou Coll. Light Industry, Zhengzhou, 450002, Peop. Rep. China
 SO Zhongcaoyao (1995), 26(11), 607-10
 CODEN: CTYAD8; ISSN: 0253-2670
 DT Journal; General Review
 LA Chinese
 AB A review with 32 refs. It comprises the physiol. and **pharmaceutical** uses, structure, chem. compn., form, content, and application of **soya saponin**.

L8 ANSWER 9 OF 20 CAPLUS COPYRIGHT 2002 ACS
 AN 1995:543585 CAPLUS
 DN 122:274068
 TI Gelled aqueous compositions comprising acrylic polymers and surfactants
 IN Iliopoulos, Ilias; Cartalas-Sarrazin, Anne; Loyer, Karine; Audebert, Roland; Meybeck, Alain; Tranchant, Jean-Francois
 PA LVMH Recherche, Fr.
 SO PCT Int. Appl., 41 pp.
 CODEN: PIXXD2
 DT Patent
 LA French
 FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|--|------|----------|-----------------|----------|
| PI | WO 9504774 | A1 | 19950216 | WO 1994-FR971 | 19940802 |
| | W: JP, US | | | | |
| | RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE | | | | |
| | FR 2708616 | A1 | 19950210 | FR 1993-9607 | 19930804 |
| | FR 2708616 | B1 | 19951027 | | |
| | EP 712422 | A1 | 19960522 | EP 1994-923770 | 19940802 |
| | EP 712422 | B1 | 19990113 | | |
| | R: BE, CH, DE, ES, FR, GB, IT, LI | | | | |
| | JP 09501196 | T2 | 19970204 | JP 1995-506247 | 19940802 |
| | ES 2129660 | T3 | 19990616 | ES 1994-923770 | 19940802 |
| | US 6288137 | B1 | 20010911 | US 1997-854413 | 19970512 |
| | US 2002042453 | A1 | 20020411 | US 2001-845963 | 20010430 |
| PRAI | FR 1993-9607 | A | 19930804 | | |
| | WO 1994-FR971 | W | 19940802 | | |
| | US 1996-592319 | B1 | 19960304 | | |
| | US 1997-854413 | A1 | 19970512 | | |
| AB | A method for prepg. an aq. compn. having the form of a gel at a given temp. is disclosed. The method is characterized in that a water-sol. | | | | |

assocn. polymer consisting of a main hydrophilic chain and hydrophobic pendant groups is contacted in said compn. with at least one surfactant having the form of bilayers when in an aq. soln. at the same temp. and concn. A gel contg. acrylic polymer and polyethylene glycol monododecyl ether was prep'd.

L8 ANSWER 10 OF 20 CAPLUS COPYRIGHT 2002 ACS
 AN 1995:511050 CAPLUS
 DN 122:248082
 TI Soyasaponins, valuable natural products
 AU Wang, Zhangcun; Liu, Weidong
 CS Dep. Food Eng., Zhengzhou Light Industry Coll., Zhengzhou, 450002, Peop. Rep. China
 SO Shipin Kexue (Beijing) (1995), 16(2), 3-4
 CODEN: SPKHD5; ISSN: 1002-6630
 DT Journal; General Review
 LA Chinese
 AB A review with 17 refs. discussing soyasaponins, valuable natural products for therapeutic and other applications.

L8 ANSWER 11 OF 20 CAPLUS COPYRIGHT 2002 ACS
 AN 1993:610713 CAPLUS
 DN 119:210713
 TI Solubilization of **soya saponins** with cyclodextrins
 IN Ooishi, Akio; Harada, Hiroshi; Isobe, Yosuke
 PA Honen Corp, Japan
 SO Jpn. Kokai Tokkyo Koho, 4 pp.
 CODEN: JKXXAF

DT Patent
 LA Japanese

FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|----|-------------|------|----------|-----------------|----------|
| PI | JP 05186359 | A2 | 19930727 | JP 1991-359573 | 19911231 |
| | JP 3069652 | B2 | 20000724 | | |

AB **Soya saponins** are solubilized by addn. of .gamma.-cyclodextrin or its derivs. The obtained product can be used as a therapeutic agent and a food additive (no data). For example, defatted soybean was extd. with an alc. **Saponin** A fractions of the ext. were collected, concd., dried, and dissolved in water. .gamma.-Cyclodextrin was added to the soln. with stirring and heating. Finally, the soln. was freeze-dried.

L8 ANSWER 12 OF 20 CAPLUS COPYRIGHT 2002 ACS
 AN 1993:175781 CAPLUS
 DN 118:175781
 TI Complexes of **saponins** and their aglycons with phospholipids and **pharmaceutical** and cosmetic compositions containing them
 IN Bombardelli, Ezio; Patri, Gianfranco; Pozzi, Roberto
 PA Indena, S.p.A., Italy
 SO U.S., 3 pp. Cont.-in-part of U.S. Ser. No. 514,216, abandoned.
 CODEN: USXXAM

DT Patent
 LA English

FAN.CNT 4

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|----------------|------|----------|-----------------|----------|
| PI | US 5166139 | A | 19921124 | US 1991-643791 | 19910118 |
| PRAI | IT 1987-19496 | | 19870226 | | |
| | US 1988-158577 | | 19880222 | | |
| | US 1990-514126 | | 19900425 | | |

AB Complexes of **saponins** from Centella asiatica and Terminalia with phospholipids where molar ratio of phospholipids to **saponins** is 0.5-2 have anti-inflammatory and antiedema effects. Sericoside (I) in CH₂Cl₂ was heated with distearoylphosphatidylcholine (II) to obtain I-II

complex. The complex at 1.mu.M inhibited the croton oil-induced edema in mice ear by 90.3%.

L8 ANSWER 13 OF 20 CAPLUS COPYRIGHT 2002 ACS

AN 1993:11724 CAPLUS

DN 118:11724

TI Extraction of therapeutic **saponins** from soybean hypocotyl

IN Nakamura, Junji; Okubo, Kazuyoshi; Suzuki, Masayuki; Magota, Hiromi

PA Dowa Mining Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 3 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|----|-------------|------|----------|-----------------|----------|
| PI | JP 04217629 | A2 | 19920807 | JP 1990-412328 | 19901219 |

AB **Saponins** are extd. efficiently from the hypocotyl of soybean. A stepwise extn. method was described using EtOH, isoamyl alc., and Bu alc. as solvents.

L8 ANSWER 14 OF 20 CAPLUS COPYRIGHT 2002 ACS

AN 1992:91443 CAPLUS

DN 116:91443

TI Inhibitors of alcohol absorption in human digestive tract

IN Kato, Tamako; Sekiguchi, Tamayo; Kawaguchi, Makoto

PA Rohto Pharmaceutical Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 9 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|---------------|------|----------|-----------------|----------|
| PI | JP 03264534 | A2 | 19911125 | JP 1990-65056 | 19900315 |
| | JP 2891738 | B2 | 19990517 | | |
| | JP 11222438 | A2 | 19990817 | JP 1998-303805 | 19981026 |
| | JP 3088707 | B2 | 20000918 | | |
| PRAI | JP 1990-65056 | A3 | 19900315 | | |

AB The alc. absorption inhibitor contains (1) an oriental drug or its ext. and (2) soybean **saponin** and/or carnitine chloride. A **pharmaceutical** formulation contg. the inhibitor controls blood alc. increase in drinking alc. beverage. An oral liq. compn. consisted of carnitine chloride 200, a carrot ext. 50, Wuzhuyu powder 100, sucrose 1000, citric acid 70mg, and a flavor 0.03mL and water to 30 mL.

L8 ANSWER 15 OF 20 CAPLUS COPYRIGHT 2002 ACS

AN 1991:614630 CAPLUS

DN 115:214630

TI Effect of various additives on fluidity of diflunisal suppository melts

AU Ishimaru, Sueaki; Kojima, Hideo; Shirakura, Osamu; Kawata, Masakazu; Goto, Shigeru

CS Dev. Res. Lab., Banyu Pharm. Co., Ltd., Saitama, 360-02, Japan

SO Yakuzai gaku (1991), 51(1), 1-7

CODEN: YAKUA2; ISSN: 0372-7629

DT Journal

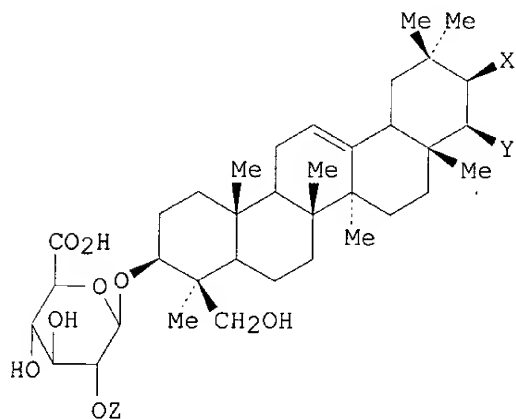
LA Japanese

AB Diflunisal (DIF), a salicylic acid deriv., is an effective anti-inflammatory analgesic. Prepn. of DIF suppositories by the use of Pharmasol, a fatty base, was attempted. However, the DIF suppository melt had low fluidity. The fluidity of suppository melt is one of the important factors relating to manufg. efficiency and absorbability of suppositories. Accordingly, optimum additives which would be effective in overcoming the low fluidity of DIF suppository melts were detd. The fluidity was measured by the use of rotating-cylinder rheometer, and

Bingham viscosity and yield value were calcd. as the indexes of fluidity of the melt. Some lecithins were found to be effective in improving the fluidity of the DIF suppository melt, esp. in lowering the yield value. In the cases of soybean and egg lecithins, the greatest effect for the improvement of both indexes was obsd. with 4% addn., and after that no change was obsd. up to 8%. While in the case of hydrogenated soybean lecithin (Lecinol S-10), the optimum concn. was .apprx.4%. Also the effect of phosphatidylcholine (PC) concn. in lecithins on fluidity improvements of DIF suppository melts was detd.; Lecinol S-10 EX which contains high PC (>95%) was not effective in improving the low fluidity, while such lecithins as Lecinol S-10 (25-30%) and Lecinol S-10 M (55-65%) which do not contain high PC were effective.

L8 ANSWER 16 OF 20 CAPLUS COPYRIGHT 2002 ACS
 AN 1990:84153 CAPLUS
 DN 112:84153
 TI **Soya saponin** isolation from soybeans
 IN Kitagawa, Isamu
 PA Japan
 SO Jpn. Kokai Tokkyo Koho, 16 pp.
 CODEN: JKXXAF
 DT Patent
 LA Japanese
 FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|----|------------------|------|----------|-----------------|----------|
| PI | JP 01066196 | A2 | 19890313 | JP 1987-223280 | 19870907 |
| OS | MARPAT 112:84153 | | | | |
| GI | | | | | |



AB The **soya saponins** [I; when X = OH and Y = O-[2,3,4,6-tetra-O-acetyl-.beta.-D-glucopyranosyl (1 .fwdarw. 3)-.alpha.-L-arabinopyranosyl, then Z = .beta.-D-glucopyranosyl (1 .fwdarw. 2)-.beta.-D-galactopyranosyl, .beta.-D-galactopyranosyl; when X = OH and Y = O-[2,3,4-tri-O-acetyl-.beta.-D-xylopyranosyl (1 .fwdarw. 3)-.alpha.-L-arabinopyranosyl, then Z = .beta.-D-glucopyranosyl (1 .fwdarw. 2)-.beta.-D-galactopyranosyl, .beta.-D-galactopyranosyl or .alpha.-L-arabinopyranosyl; etc.] are isolated from soybean buds. Thus, the following **soya saponins** were isolated: acetylsoyasaponin A1, A2, A3, A4, A5, and A6, soyasaponin A3, A4, A5, and A6, and soyasaponin V. The acetylsoyasaponins are effective in stimulating gastric secretion, while soyasaponins V and A3-6 are effective in controlling lipid oxide formation.

L8 ANSWER 17 OF 20 CAPLUS COPYRIGHT 2002 ACS

AN 1989:412504 CAPLUS

DN 111:12504

TI Complexes of **saponins** with phospholipids and **pharmaceutical** and cosmetic compositions containing them

IN Bombardelli, Ezio; Patri, Gian Franco; Pozzi, Roberto

PA Indena S.p.A., Italy

SO Eur. Pat. Appl., 9 pp.

CODEN: EPXXDW

DT Patent

LA English

FAN.CNT 4

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|---|------|----------|-----------------|----------|
| PI | EP 283713 | A2 | 19880928 | EP 1988-102321 | 19880218 |
| | EP 283713 | A3 | 19900307 | | |
| | EP 283713 | B1 | 19930811 | | |
| | R: AT, BE, CH, DE, ES, FR, GB, GR, IT, LI, LU, NL, SE | | | | |
| | AT 92930 | E | 19930815 | AT 1988-102321 | 19880218 |
| | ES 2058151 | T3 | 19941101 | ES 1988-102321 | 19880218 |
| | JP 63277691 | A2 | 19881115 | JP 1988-43269 | 19880225 |
| PRAI | IT 1987-19496 | | 19870226 | | |
| | EP 1988-102321 | | 19880218 | | |

AB Complexes of **saponins** with a natural or synthetic phospholipids are highly lipophilic and have improved bioavailability. They are used as active ingredients in **pharmaceutical**, dermatol., and cosmetic compns. Sericoside (3.3 g) was treated with 4 g distearoylphosphatidylcholine to give a sericoside-distearoylphosphatidylcholine complex. This complex was more active than sericoside in the carrageenin edema test in rats, orally (no data). A gel contained sericoside-soy phosphatidylcholine (Lipoid S-100) 1.5, Kathon 0.1, imidazolidinurea 0.3, ethoxylated C8-C12 triglycerides 25, polyoxyethylene-20-deiletere 6, carboxyvinyl polymer 1.5, triethanolamine 2, perfume 0.2, and water 63.4 g.

L8 ANSWER 18 OF 20 CAPLUS COPYRIGHT 2002 ACS

AN 1988:62430 CAPLUS

Correction of: 1987:182629

DN 108:62430

Correction of: 106:182629

TI Extraction of **pharmaceutical saponins** from soybean buds

IN Hayashi, Giichi

PA Airin Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 3 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|----|-------------|------|----------|-----------------|----------|
| PI | JP 62005917 | A2 | 19870112 | JP 1985-145959 | 19850703 |

AB **Saponins** free of toxic isoflavone contaminants are isolated from soybean embryonic buds. Soybean buds (1 kg) were extd. with 3 L 0.001 N HCl.90% MeOH, and defatted with 1 L hexane. The ext. was concd., dild. with H2O to 2 L, treated with HP-20 resin adsorbent, eluted 1st with 20% Me2CO and then with 70% Me2CO. The latter eluant was concd. to give 24.38 g of a crude powder, 5.5 g of which was dissolved in 20 mL 99% MeOH, and subjected to Sephadex LH-20 gel filtration chromatog. to isolate 3.1 g of pure **saponins**.

L8 ANSWER 19 OF 20 CAPLUS COPYRIGHT 2002 ACS

AN 1987:595156 CAPLUS

DN 107:195156

TI Preparation of **saponins** from Astragalus membranaceus roots

IN Kadota, Akimi; Uchida, Yoshihiro
 PA Osaka Yakuhin Kenkyusho K. K., Japan
 SO Jpn. Kokai Tokkyo Koho, 10 pp.
 CODEN: JKXXAF
 DT Patent
 LA Japanese
 FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|----|--|------|----------|-----------------|----------|
| PI | JP 62012792 | A2 | 19870121 | JP 1986-169997 | 19860718 |
| AB | Roots of <i>A. membranaceus</i> are extd. with a lower alc. The ext. is concd., treated with an adsorbent, and worked up by column chromatog. to give saponins . <i>A. membranaceus</i> Roots (8 kg) were refluxed with MeOH (18 L) for 5 h. The ext. was filtered, and the residues were exhaustively extd. with MeOH. The combined MeOH ext. was concd. in vacuo and worked up by column chromatog. and TLC to give astragaloside I 3.5, II 2.3, III 1, IV 0.8 g, V 100, VI 300, VII 100, VIII 600, acetylastragaloside I 200, isoastragaloside I 300, and soya saponin I 600 mg. All the above saponins markedly inhibited the formation of lipid peroxides by i.p. administration of adriamycin in male rats. | | | | |

L8 ANSWER 20 OF 20 CAPLUS COPYRIGHT 2002 ACS
 AN 1987:464877 CAPLUS
 DN 107:64877
 TI Appetite moderating and anti-gastritis composition
 IN Ferro, Antonio
 PA Crinos Industria Farmacobiologica S.p.A., Italy
 SO Eur. Pat. Appl., 10 pp.
 CODEN: EPXXDW
 DT Patent
 LA English
 FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|---|------|----------|-----------------|------------|
| PI | EP 219156 | A1 | 19870422 | EP 1986-201638 | 19860922 ← |
| | EP 219156 | B1 | 19901128 | | |
| | R: AT, BE, CH, DE, FR, GB, IT, LI, LU, NL, SE | | | | |
| | AT 58639 | E | 19901215 | AT 1986-201638 | 19860922 |
| | AU 8663113 | A1 | 19870402 | AU 1986-63113 | 19860924 |
| | AU 596119 | B2 | 19900426 | | |
| | JP 62123122 | A2 | 19870604 | JP 1986-226308 | 19860926 |
| | CA 1273874 | A1 | 19900911 | CA 1986-519222 | 19860926 |
| | US 4999341 | A | 19910312 | US 1989-414738 | 19890927 |
| PRAI | IT 1985-22284 | | 19850926 | | |
| | EP 1986-201638 | | 19860922 | | |
| | US 1986-909930 | | 19860922 | | |
| | US 1988-243192 | | 19880908 | | |
| AB | Oral compns. for dietary and pharmaceutical use are prepd. from aminopolysaccharides i.e. chitin, chitosan, and their salts, and soy saponins . These compns. have antigastritis and appetite modulating activity. The combination of the aminopolysaccharide and the soy saponins prevents the constipation or diarrhea with which these compds. are assocd. Tablets contg. chitosan 700, soy saponins 16, lactose 25, and Mg stearate 10 mg were prepd. | | | | |

=> dis 111 bib abs

L11 ANSWER 1 OF 11 CAPLUS COPYRIGHT 2002 ACS
 AN 2000:741892 CAPLUS
 DN 133:313639
 TI **Pharmaceutical** formulations comprising bisphosphonates and additive agents providing enhanced absorptions of the bisphosphonates
 IN Lindfors, Lennart; Lofroth, Jan-Erik; Sjogren, Sven; Ungell, Anna-Lena
 PA Astrazeneca AB, Swed.

SO PCT Int. Appl., 31 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|---------------|--|----------|-----------------|----------|
| PI | WO 2000061111 | A1 | 20001019 | WO 2000-SE664 | 20000406 |
| | W: | AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM | | | |
| | RW: | GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG | | | |
| | EP 1171097 | A1 | 20020116 | EP 2000-921288 | 20000406 |
| | R: | AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO | | | |
| | NO 2001004895 | A | 20011210 | NO 2001-4895 | 20011008 |
| PRAI | SE 1999-1272 | A | 19990409 | | |
| | WO 2000-SE664 | W | 20000406 | | |

OS MARPAT 133:313639

AB The present invention provides **pharmaceutical** formulations comprising at least one bisphosphonate and an additive consisting of one or more absorption enhancing agents. The said **pharmaceutical** formulations are useful for the inhibition of bone resorption and for the treatment and prevention of osteoporosis. A **compn.** contg. alendronate 2.3, caprylic acid sodium salt 11.5 mg, and 50 mM Tris with 100 mM NaCl 1 g was formulated.

RE.CNT 10 THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> dis 113 1 bib abs

L13 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2002 ACS

AN 1995:839086 CAPLUS

DN 123:218421

TI Endothelin-converting enzyme inhibitors containing soyasaponins and therapeutics for diseases

IN Sakai, Hiroshi; Hiramoto, Shigeru; Oowaki, Tatsuya; Nakada, Fumihisa; Shirane, Katsunori; Hojo, Naomi; Fujimaki, Sumi; Komatsu, Hirohiko

PA Nisshin Flour Milling Co, Japan

SO Jpn. Kokai Tokkyo Koho, 5 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|----|-------------|------|----------|-----------------|----------|
| PI | JP 07188033 | A2 | 19950725 | JP 1993-334725 | 19931228 |

OS MARPAT 123:218421

AB The enzyme inhibitors contain soyasaponins or their pharmacol. acceptable salts. Also claimed are therapeutics contg. the inhibitors as active ingredients for hypertension, twitch after subarachnoidal hemorrhage, myocardial infarction, arteriosclerosis, renal failure, cardiac failure, asthma, Raynaud disease, Buerger's disease, Takayasu's disease, Kawasaki's disease, and renal disorders in cisplatin therapy. Inhibition rates of soyasaponin II against endothelin-converting enzymes from human placenta and rat lung were 67 and 42%, resp., and the activity was specific to the enzyme. A tablet contg. soyasaponin I was formulated.

=> dis 116 1-16 bib abs

L16 ANSWER 1 OF 21 CAPLUS COPYRIGHT 2002 ACS

AN 2002:227052 CAPLUS

DN 136:324290

TI Quantification of the Group B Soyasaponins by High-Performance Liquid Chromatography

AU Hu, Jiang; Lee, Sun-Ok; Hendrich, Suzanne; Murphy, Patricia A.

CS Department of Food Science and Human Nutrition, Iowa State University, Ames, IA, 50011, USA

SO Journal of Agricultural and Food Chemistry (2002), 50(9), 2587-2594
CODEN: JAFCAU; ISSN: 0021-8561

PB American Chemical Society

DT Journal

LA English

AB High-performance liq. chromatog. methods were developed for the isolation and quant. detn. of the group B soyasaponins, including 2,3-dihydro-2,5-dihydroxy-6-methyl-4H-pyran-4-one (DDMP)-conjugated soyasaponins .alpha.g, .beta.g, and .beta.a, and their non-DDMP counterparts, soyasaponins V, I, and II, resp., with formononetin used as the internal std. The limits of quantification for soy products were 0.11-4.86 .mu.mol/g. The within-day and between-days assay coeffs. of variation were <9.8 and < 14.3%, resp. The group B soyasaponin concns. in 46 soybean varieties ranged from 2.50 to 5.85 .mu.mol/g. Soy ingredients (soybean flour, toasted soy hypocotyls, soy protein isolates, textured vegetable protein, soy protein concs., and Novasoy) and soy foods (com. soy milk, tofu, and tempeh) contained the group B soyasaponins from 0.20 to 114.02 .mu.mol/g. There was no apparent correlation between isoflavone and soyasaponin concns. in the soy products examd.

L16 ANSWER 2 OF 21 CAPLUS COPYRIGHT 2002 ACS

AN 2001:780181 CAPLUS

DN 136:318763

TI Investigation of biological significance of soya saponins using monoclonal antibodies

AU Frokiaer, Hanne; Larsen, Svend Arild Juhl; Sorensen, Anne Dorthe;

Sorensen, Hilmer; Sorensen, Jens Christian; Sorensen, Susanne

CS Section of Biochemistry and Nutrition, Technical University of Denmark, Lyngby, DK-2800, Den.

SO Special Publication - Royal Society of Chemistry (2001),
269(Biologically-Active Phytochemicals in Food), 74-76
CODEN: SROCD0; ISSN: 0260-6291

PB Royal Society of Chemistry

DT Journal

LA English

AB The biochem.-physiol. effects of soya saponins present in soya and pea were detd. with respect to particularly membrane or matrix assocn. and cholesterol and bile acid complexation. High performance liq. chromatog. of the saponin fraction isolated from pea showed only one dominating peak at the expected retention time and it was obsd. that a purity of saponin or about 50% had been obtained. The pools achieved from anion exchange purifn. of soya saponins were utilized for examn. of biol. effects in an in vitro expt. with dialysis of saponin in the presence of different compds. as BSA representing food protein and cholic acid and tauro cholic acid representing bile salts and cholesterol present during food uptake in the intestine. The effects on dialyzability compared to a ref. sample contg. only saponin sample and water were seen for the samples contg. cholic acid and tauro cholic acid above but not below the crit. micelle concns. of the compds. and that BSA also seemed to have an effect on saponin dialyzability. These results indicated that the susceptibility of saponin to be absorbed in the intestine was highly dependent on the conditions present in the intestine.

RE.CNT 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD

ALL CITATIONS AVAILABLE IN THE RE FORMAT

L16 ANSWER 3 OF 21 CAPLUS COPYRIGHT 2002 ACS
 AN 2000:222893 CAPLUS
 DN 132:333651
 TI Characterization and antimutagenic activity of soybean **saponins**
 AU Berhow, Mark A.; Wagner, Elizabeth D.; Vaughn, Steven F.; Plewa, Michael J.
 CS United States Department of Agriculture, Agricultural Research Service, National Center for Agricultural Utilization Research, Peoria, IL, 61604, USA
 SO Mutation Research (2000), 448(1), 11-22
 CODEN: MUREAV; ISSN: 0027-5107
 PB Elsevier Science B.V.
 DT Journal
 LA English
 AB An ext. was prepd. from a com. soybean-processing byproduct (soybean molasses) and was fractionated into purified chem. components. In previous work, this ext. (phytochem. conc., PCC) repressed induced genomic DNA damage, whole cell clastogenicity and point mutation in cultured mammalian cells. In the current study, a chem. fraction was isolated from PCC using preparative high-performance liq. **chromatog.** (HPLC). This fraction, PCC100, repressed 2-acetoxyacetylaminofluorene (2AAAF)-induced DNA damage in Chinese hamster ovary (CHO) cells as measured by single cell gel electrophoresis (alk. Comet assay). Using liq. **chromatog.**-electrospray ionization-mass spectroscopy and 1H and 13C NMR (NMR) spectroscopy, PCC100 was shown to consist of a mixt. of group B soyasaponins and 2,3-dihydro-2,5-dihydroxy-6-methyl-4H-pyran-4-one (DDMP) soyasaponins. These include soyasaponins I, II, III, IV, V, Be, .beta.g, .beta.a, .gamma.g and .gamma.a. Purified soyasapogenol B aglycon prepd. from fraction PCC100 demonstrated significant antigenotoxic activity against 2AAAF. To our knowledge, these data demonstrate for the first time the antimutagenic activity of soybean **saponins** in mammalian cells.
 RE.CNT 58 THERE ARE 58 CITED REFERENCES AVAILABLE FOR THIS RECORD
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L16 ANSWER 4 OF 21 CAPLUS COPYRIGHT 2002 ACS
 AN 1998:724491 CAPLUS
 DN 130:78725
 TI Two new **saponins** from faba bean (*Vicia faba*)
 AU Amarowicz, Ryszard; Yoshiki, Yumiki; Okubo, Kazuyoshi
 CS Div. Food Sci., Inst. Animal Reproduction Food Research, Polish Acad. Sci., Olsztyn, 10718, Pol.
 SO Zeitschrift fuer Naturforschung, C: Biosciences (1998), 53(9/10), 918-920
 CODEN: ZNCBDA; ISSN: 0341-0382
 PB Verlag der Zeitschrift fuer Naturforschung
 DT Journal
 LA English
 AB 2 New **saponins** were isolated from faba bean (*V. faba*) by column **chromatog.** (Sephadex LH-20 and ODS) and semi-preparative HPLC. Their mol. wts. detd. by FAB-MS were 980 and 964, resp. Results of TLC anal. showed that these compds. are similar to **soya saponin** group B. The presence of sepd. **saponins** was confirmed by TLC for seeds of 4 cultivars of faba bean.
 RE.CNT 17 THERE ARE 17 CITED REFERENCES AVAILABLE FOR THIS RECORD
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L16 ANSWER 5 OF 21 CAPLUS COPYRIGHT 2002 ACS
 AN 1998:56185 CAPLUS
 DN 128:86461
 TI Presence of two **saponins** in faba bean (*Vicia faba*) seeds
 AU Amarowicz, R.; Yoshiki, Y.; Pegg, R. B.; Okubo, K.
 CS Div. Food Science, Inst. Animal Reproduction Food Research, Polish Academy Sciences, Olsztyn, 10718, Pol.

SO Nahrung (1997), 41(6), 352-354 ← 122
CODEN: NAHRAR; ISSN: 0027-769X

PB Wiley-VCH Verlag GmbH

DT Journal

LA English

AB Two new **saponins** were isolated from faba beans by Sephadex LH-20 gel filtration, ODS column **chromatog.**, and semi-preparative HPLC. The mol. wts. were 978 and 962, resp. The compds. were similar to **soya saponin** group B showed by TLC and FTIR spectroscopy. The presence of the sepd. **saponins** was confirmed by TLC for seeds of 4 cultivars of *Vicia faba*.

L16 ANSWER 6 OF 21 CAPLUS COPYRIGHT 2002 ACS

AN 1997:452655 CAPLUS

DN 127:173435

TI Identification of soyasaponins by liquid **chromatography** -thermospray mass spectrometry

AU Fuzzati, N.; Pace, R.; Papeo, G.; Peterlongo, F.

CS Indena SpA, Laboratori Ricerca e Sviluppo, Via Don Minzoni 6, Settala (Milan), 20090, Italy

SO Journal of Chromatography, A (1997), 777(1), 233-238 ← 122 ? yes.
CODEN: JCRAEY; ISSN: 0021-9673

PB Elsevier

DT Journal

LA English

AB **Saponins** are important bioactive mols. widespread in the plant kingdom. Soyasaponins, isolated from *G. max* (Leguminosae), have been shown to exhibit various biol. activities, e.g., an inhibitory effect on lipid-oxidn. and liver-lesion generation and an improving effect on hypercholesteremia. Mass spectral investigation of these metabolites requires soft ionization techniques such as desorption chem. ionization, fast atom bombardment and thermospray mass spectrometry. A HPLC method was developed for thermospray mass spectrometric anal. of **saponins** contained in soybean flour exts. The analyses were performed using a ternary eluent (H₂O-MeOH-MeCN) in gradient conditions with post-column addn. of aq. ammonium acetate. Six **saponin** components were sepd. and identified. The mass spectra obtained provided information concerning both mol. masses and aglycon compn.

L16 ANSWER 7 OF 21 CAPLUS COPYRIGHT 2002 ACS

AN 1996:448430 CAPLUS

DN 125:110308

TI Determination of **saponins** in the main legumes cultivated in Spain

AU Ayet, G.; Muzquiz, M.; Burbano, C.; Robredo, L. M.; Cuadrado, C.; Price, K. R.

CS SGIT, INIA, Madrid, 28080, Spain

SO Food Sci. Technol. Int. (London) (1996), 2(2), 95-100

CODEN: FSTIFZ; ISSN: 1082-0132

DT Journal

LA Spanish

AB The seeds of different legumes (*Lupinus albus*, *Lens culinaris*, *Cicer arietinum*, *Phaseolus vulgaris*, *Vicia faba*) were analyzed for soyasaponin content and soyasapogenol compn. using different **chromatog.** techniques. The soyasapogenol was present in all species, except in *L. albus*; the content ranged from 0.02 mg/g in *V. faba* to 1.21 mg/g in *P. vulgaris*. Two soyasaponins were detected by FAB-MS. Soyasaponin I was detected in the *L. culinaris*, *C. arietinum*, *V. faba* and *P. vulgaris* exts. and soyasaponin V in the *P. vulgaris* exts.

L16 ANSWER 8 OF 21 CAPLUS COPYRIGHT 2002 ACS

AN 1995:358219 CAPLUS

DN 122:159010

TI Occurrence of **saponins** and sapogenols in Andean crops

AU Cuadrado, C.; Ayet, G.; Burbano, C.; Muzquiz, M.; Camacho, L.; Cavieres,

E.; Lovon, M.; Osagie, A.; Price, K. R.
CS Centro Investigacion Tecnol., CIT-INIA, Madrid, 28080, Spain
SO J. Sci. Food Agric. (1995), 67(2), 169-72 ← 122
CODEN: JSFAAE; ISSN: 0022-5142
DT Journal
LA English
AB Samples of bitter seeds of local ecotypes and cultivars of lupin (*Lupinus mutabilis*), white and yellow ecotypes of quinoa (*Chenopodium quinoa* Wild) and a local ecotype of amaranth (*Amaranthus caudatus*) grown in the Peruvian highlands were analyzed for total **saponin** content and sapogenol compn. Sweet cultivars of *L. albus* and *L. luteus* cultivated in mild-rainy lowlands of Chile were also analyzed for comparison. Fast atom bombardment-mass spectrometry (FAB-MS) of the **saponin** exts. and gas chromatog. (GC) anal. of the sapogenols after acid hydrolysis of the crude ext. were used for the identification and quantification of **saponins**. It was found that *L. albus* and amaranth had undetectable levels of **saponins** making them attractive for human consumption. The cultivars and ecotypes of *L. mutabilis* contained **saponin** levels in the range of 229.8-390.5 mg kg⁻¹. FAB-MS showed the presence of **soya saponins** I and II, whereas GC allowed the identification of **soya** sapogenols A and B. The same **saponin** compn. was detd. in *L. luteus* whose total content was 55.3 mg kg⁻¹. **Saponin** compn. in quinoa seeds comprised oleanolic acid and three other sapogenols identified as hederagenin, phytolaccagenic acid and deoxyphytolaccagenic acid. Oleanolic acid **saponins** were found to be the main class of **saponin** in quinoa seeds. The yellow ecotype of quinoa presented a significantly higher content of **saponins** and of oleanolic acid as compared to white ecotypes. Since only one ecotype of amaranth was analyzed, the nutritional significance of no detectable **saponin** needs further study. The environmental conditions in the Peruvian highlands are determinants of the amt. and compn. of **saponins** present in bitter lupin and quinoa.

L16 ANSWER 9 OF 21 CAPLUS COPYRIGHT 2002 ACS

AN 1994:504085 CAPLUS

DN 121:104085

TI Determination of the structures of soybean **saponins** by liquid chromatography / mass spectrometry

AU Sakabe, Terumi; Ohtsuki, Satoru; Tamura, Nobuhiro; Okubo, Kazuyosi

CS Anal. Res. Cent., Asahi Chem. Ind., Japan

SO Tennen Yuki Kagobutsu Toronkai Koen Yoshishu (1993), 35th, 732-7 ← 122
CODEN: TYKYDS

DT Journal

LA English

AB Soybean seeds contain many kinds of **saponins** and some of them are considered to have defense effect on HIV (human immunodeficiency virus). Generally, **saponins** are classified to three groups (group A, B and E) according to their chem. structures. "Group A" **saponins** have two sugar chains which link to C-3 and C-22 aglycon structures. "Group B" and "Group E" have a single chain which links to C-3. The structures of "Group B" **saponins** was studied by using by Liq. Chromatography / Mass Spectrometry (LC/MS) technique. Five kinds of **saponins** were isolated named soyasaponins .alpha. g, .beta. g, .beta. a, .gamma. g, and .gamma. a, according to elution order from HPLC. Then the structures were characterized as 2, 3-dihydro-2, 5-dihydro-2, 5-dihydroxy-6-methyl-4h-pyran-4-one (DDMP) attaching through an acetal linkage to the C-22 hydroxyl of the aglycons of "Group B" **saponins**. Mechanism of formation of the sugar sequence was studied by using the same LC/MS technique.

L16 ANSWER 10 OF 21 CAPLUS COPYRIGHT 2002 ACS

AN 1994:431355 CAPLUS

DN 121:31355

TI Isolation and purification of soyasaponins

IN Kudo, Shigemitsu; Ookubo, Kazuyoshi
PA Abo Sadakichi, Japan
SO Jpn. Kokai Tokkyo Koho, 5 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
FAN. CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|----|-------------|------|----------|-----------------|----------|
| PI | JP 06100583 | A2 | 19940412 | JP 1992-277828 | 19920922 |
| GI | JP 2640066 | B2 | 19970813 | | |

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB Soyasaponins having aglycon soyasapogenol B (I; R = Q, Q1, Q2) are isolated and purified by extg. **soya** glycosides from soy beans with aq. MeOH, directly adsorbing the ext. on an ODS (octadecyl silyl) column, eluting the column with aq. MeOH, analyzing the effluents using thin layer **chromatog.** or HPLC, sep. selecting and collecting the fractions contg. each soyasaponin, and concg. the combined fractions to dryness. Soyasaponins are isolated as true **saponins** in 2 steps, since no alkali treatment was involved.

L16 ANSWER 11 OF 21 CAPLUS COPYRIGHT 2002 ACS

AN 1994:407650 CAPLUS

DN 121:7650

TI Isolation, identification and toxicity of **saponin** from different legumes

AU Khalil, A. H.; El-Adawy, T. A.

CS Fac. Agric., Menofiya Univ., Shibin El-Kom, Egypt

SO Food Chem. (1994), 50(2), 197-201 ← 111

CODEN: FOCHDJ; ISSN: 0308-8146

DT Journal

LA English

AB **Saponin** exts. were prepd. from peas, beans and soybean seeds by four different methods. Two biol. assays were developed for measuring toxicity of crude **saponin** exts. based on hemolytic activity and fish mortality. The **saponin** exts. were able to lyse red blood cells with different velocity. The hemolytic activity of bean exts. were significantly higher than those of soybean and pea exts. Sensitivity of blood cells to crude **saponin** exts. was detected by sheep and rabbit blood cells. The highest hemolytic activities of sheep and rabbit blood cells were 30.0 and 6.24 mg **saponin** equiv./g legume sample, resp. The LD50 of **saponin** to guppy fish was 150 .mu.g/mL. The ethanol/water (1:1) exts. showed the highest toxicity as revealed by both assays. TLC of crude **saponin** ext. from beans sepd. it into six fractions, whereas pea and **soya** bean were sepd. into seven and six fractions, resp. The TLC pattern of std. **saponin** indicated the presence of two main spots with Rf 0.75-0.85. Further purifn. of crude **saponin** exts. from legumes by silica gel column **chromatog.** increased the hemolytic activity of the active principle 5.7, 5.1 and 2-fold for bean, **soya** bean and pea exts., resp.

L16 ANSWER 12 OF 21 CAPLUS COPYRIGHT 2002 ACS

AN 1988:597313 CAPLUS

DN 109:197313

TI **Saponin** and sapogenol. XLIV. Soyasaponin composition in soybeans of various origins and soyasaponin content in various organs of soybean. Structure of soyasaponin V from soybean hypocotyl

AU Taniyama, Toshio; Yoshikawa, Masayuki; Kitagawa, Isao

CS Fac. Pharm. Sci., Osaka Univ., Suita, 565, Japan
SO Yakugaku Zasshi (1988), 108(6), 562-71
CODEN: YKKZAJ; ISSN: 0031-6903
DT Journal
LA Japanese
GI

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB **Saponin** compns. in soybeans of 18 different origins were examd. and it was found that the content of acetyl soyasaponins A1, A2, A3, A4, A5, and A6 [with soyasapogenol A as the aglycon] varies depending upon the kind and the habitat. **Saponins** in seed coat, cotyledon, and hypocotyl of soybeans from USA, China, and Hokkaido, were examd. by TLC and HPLC, and quant. analyzed by gas chromatog. The seed coat does not contain **saponin**, whereas cotyledon contains **saponin** of soyasapogenol B (0.14-0.18%) and **saponin** of soyasapogenol A (0.07-0.09%). The **saponin** content in hypocotyl is much higher than that in cotyledon, i.e., soyasapogenol B-**saponin** 0.42-0.52% and soyasapogenol A-**saponin** 1.25-1.46%. A new **saponin** named soyasaponin V (I) was isolated from hypocotyl and its structure was detd.

L16 ANSWER 13 OF 21 CAPLUS COPYRIGHT 2002 ACS

AN 1988:203361 CAPLUS

DN 108:203361

TI **Saponin** composition of 13 varieties of legume seed using fast atom bombardment mass spectrometry

AU Price, Keith R.; Eagles, John; Fenwick, G. Roger

CS Inst. Food Res., AFRC, Norwich, NR4 7UA, UK

SO J. Sci. Food Agric. (1988), 42(2), 183-93 ← 122

CODEN: JSFAAE; ISSN: 0022-5142

DT Journal

LA English

AB A mass spectrometric (fast atom Xe beam) technique is described which provides a fingerprint of the **saponin** compn. in crude exts. of 13 varieties of legume seeds. The ground seeds were defatted with CHCl₃ (extd. with MeOH, and the ext. was cleaned up on a reversed-phase octasilane-bonded silica gel column). The identity of individual **saponins** was confirmed by HPLC (Spherisorb ODS 2 column, MeCN-H₂O-F3CCO₂H 80:20:1 to 80:20:0.1 over 25 min, detection at 210 nm). The ability of this technique to predict the presence of unidentified **saponins** and, hence, its use for monitoring fractionation or isolation procedures is discussed.

L16 ANSWER 14 OF 21 CAPLUS COPYRIGHT 2002 ACS

AN 1988:62430 CAPLUS

Correction of: 1987:182629

DN 108:62430

Correction of: 106:182629

TI Extraction of pharmaceutical **saponins** from soybean buds

IN Hayashi, Giichi

PA Airin Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 3 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|----|---|------|----------|-----------------|----------|
| PI | JP 62005917 | A2 | 19870112 | JP 1985-145959 | 19850703 |
| AB | Saponins free of toxic isoflavone contaminants are isolated from | | | | |

soybean embryonic buds. Soybean buds (1 kg) were extd. with 3 L 0.001 N HCl. 90% MeOH, and defatted with 1 L hexane. The ext. was concd., dild. with H₂O to 2 L, treated with HP-20 resin adsorbent, eluted 1st with 20% Me₂CO and then with 70% Me₂CO. The latter eluant was concd. to give 24.38 g of a crude powder, 5.5 g of which was dissolved in 20 mL 99% MeOH, and subjected to Sephadex LH-20 gel filtration **chromatog.** to isolate 3.1 g of pure **saponins**.

L16 ANSWER 15 OF 21 CAPLUS COPYRIGHT 2002 ACS

AN 1987:595156 CAPLUS

DN 107:195156

TI Preparation of **saponins** from Astragalus membranaceus roots

IN Kadota, Akimi; Uchida, Yoshihiro

PA Osaka Yakuhin Kenkyusho K. K., Japan

SO Jpn. Kokai Tokkyo Koho, 10 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|----|--|------|----------|-----------------|----------|
| | ----- | ---- | ----- | ----- | ----- |
| PI | JP 62012792 | A2 | 19870121 | JP 1986-169997 | 19860718 |
| AB | Roots of A. membranaceus are extd. with a lower alc. The ext. is concd., treated with an adsorbent, and worked up by column chromatog. to give saponins . A. membranaceus Roots (8 kg) were refluxed with MeOH (18 L) for 5 h. The ext. was filtered, and the residues were exhaustively extd. with MeOH. The combined MeOH ext. was concd. in vacuo and worked up by column chromatog. and TLC to give astragaloside I 3.5, II 2.3, III 1, IV 0.8 g, V 100, VI 300, VII 100, VIII 600, acetylastragaloside I 200, isoastragaloside I 300, and soya saponin I 600 mg. All the above saponins markedly inhibited the formation of lipid peroxides by i.p. administration of adriamycin in male rats. | | | | |

L16 ANSWER 16 OF 21 CAPLUS COPYRIGHT 2002 ACS

AN 1987:420743 CAPLUS

DN 107:20743

TI Soyasaponin IV, an additional monodesmosidic **saponin** isolated from soybean

AU Burrows, Jeremy C.; Price, Keith R.; Fenwick, G. Roger

CS Inst. Food Res., AFRC, Norwich, NR4 7UA, UK

SO Phytochemistry (1987), 26(4), 1214-15 ←

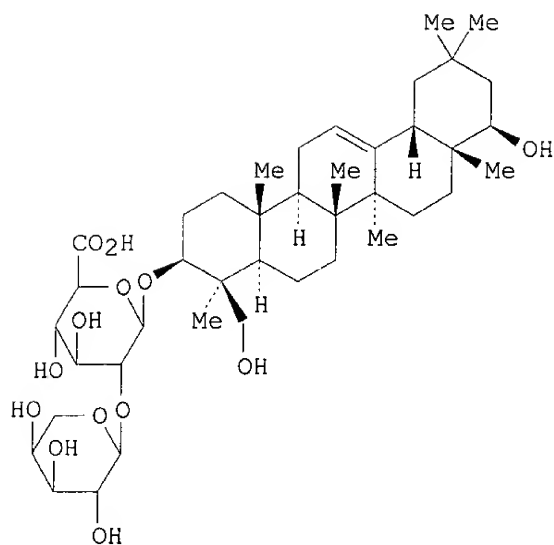
CODEN: PYTCAS; ISSN: 0031-9422

DT Journal

LA English

GI

ILL. AK 861. P45



AB A new **saponin** isolated from the methanolic ext. of soybean meal was named soyasaponin IV (I). Its structure was elucidated as 3-O-[.alpha.-L-arabinopyranosyl(1.fwdarw.2).beta.-D-glucuronopyranosyl(1.fwdarw.)]-3.beta.,22.beta.,24-trihydroxyolean-12-ene by gas **chromatog.**, ¹H NMR, and mass spectrometry.

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| COST IN U.S. DOLLARS | SINCE FILE | TOTAL |
| | ENTRY | SESSION |
| FULL ESTIMATED COST | 140.66 | 140.87 |
| DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS) | SINCE FILE | TOTAL |
| | ENTRY | SESSION |
| CA SUBSCRIBER PRICE | -27.88 | -27.88 |

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| L Number | Hits | Search Text | DB | Time stamp |
|----------|--------|--|--|------------------|
| 1 | 5751 | saponin | USPAT; US-PGPUB; EPO; DERWENT | 2002/06/14 08:39 |
| 2 | 98 | saponin and soya | USPAT; US-PGPUB; EPO; DERWENT | 2002/06/14 08:39 |
| 3 | 10 | ((saponin and soya) and isolate | USPAT; US-PGPUB; EPO; DERWENT | 2002/06/14 08:39 |
| 4 | 207099 | ((saponin and soya) and isolate) amd chromatography | USPAT; US-PGPUB; EPO; DERWENT | 2002/06/14 08:40 |
| 5 | 9 | ((saponin and soya) and isolate) and chromatography | USPAT; US-PGPUB; EPO; DERWENT | 2002/06/14 08:42 |
| 6 | 40 | ((saponin and soya) and pharmaceutical | USPAT; US-PGPUB; EPO; DERWENT | 2002/06/14 08:42 |
| 7 | 28 | ((saponin and soya) and pharmaceutical) and composition | USPAT; US-PGPUB; EPO; DERWENT | 2002/06/14 08:47 |
| 8 | 0 | soyasaponinB | USPAT; US-PGPUB; EPO; DERWENT | 2002/06/14 08:47 |
| 9 | 2 | soyasaponin adj B | USPAT; US-PGPUB; EPO; DERWENT | 2002/06/14 08:50 |
| 10 | 2 | ((soyasaponin adj B) and isolation | USPAT; US-PGPUB; EPO; DERWENT | 2002/06/14 08:50 |
| 11 | 0 | ((soyasaponin adj B) and isolation) and cystic | USPAT; US-PGPUB; EPO; DERWENT | 2002/06/14 08:51 |
| 12 | 1672 | polycystic | USPAT; US-PGPUB; EPO; DERWENT | 2002/06/14 08:51 |
| 13 | 856 | polycystic and kidney | USPAT; US-PGPUB; EPO; DERWENT | 2002/06/14 08:51 |
| 14 | 719 | ((polycystic and kidney) and treatment | USPAT; US-PGPUB; EPO; DERWENT | 2002/06/14 08:51 |
| 15 | 9 | ((polycystic and kidney) and treatment) and saponin | USPAT; US-PGPUB; EPO; DERWENT | 2002/06/14 09:20 |
| 16 | 1 | ((((polycystic and kidney) and treatment) and saponin) and soy | USPAT; US-PGPUB; EPO; DERWENT | 2002/06/14 09:21 |